

their soils. These vary from sandy, to sandy loam, clay, and clayey-loam, in some places highly ferruginous, and on the slopes of the hills often gravelly. Clover sets and thrives well in most places, and the pasturages are covered with the white clover, plainly indicating the aptness of the soil to attain, under proper management, a high degree of fertility. The wooded land consists principally of oaks, chesnut and dogwood; whilst the locust and cedar grow readily, in all parts. Such are the prominent features in the physical geography of the county.

In reference to its geological constitution, the northern and middle portions of the county are based upon deposits of the *secondary* period, referrible to what in our country has been termed the ferruginous sand formation, and embracing extensive beds of greensand, containing as characteristic fossils *terrebratula* and *gryphæ*, and beds of a micaceous black sand with *belemnites*, *ammonites*, *exogyra*, &c. The superincumbent deposits of clay, sand and gravel, that occasionally present themselves, have very little depth, and belong doubtless to a much more recent epoch, which it is difficult to assign with precision. The only fossil known to have been found in them, is the grinder of a *mastodon*. They are probably of diluvial origin.

On the banks of the Chester, the southwest portion of the county, including all the necks previously described and the bay-side, the secondary deposits disappear, being replaced by ferruginous clays and sands, which, judging from one or two fossiliferous beds of small extent that occur among them, belong to the *tertiary* period. These materials are in some places very much intermixed with particles of green sand, washed down from the deposits in place of this article that occur in the upper portions of the county. There is no locality among them offering any special geological interest excepting one, at Farley, where a lignitiferous clay with nodules of pyrites occurs a little above high-water mark, surmounted by a thick stratum of boulders and gravel composed of coarse and fine grained sandstone, greenstone, micaceous and argillaceous slates, quartz-rock, and quartz, from several hundred pounds weight down to ordinary sized gravel, the whole covered by a clayey-loamy soil upwards of three feet in depth. In this bed of clay there have been found detached and grouped crystals of *selenite*. Some of the materials referred to in this and the preceding paragraph promise to furnish important agricultural resources to the county.

In my report of the Geological Survey of Maryland during the year 1835, I called the attention of the people of Kent county to the occurrence within their limits, of the *greensand*, so extensively used in New Jersey as a manure, and of another mineral deposit designated as the micaceous black sand, which from its composition it was supposed would likewise prove beneficial when applied to the soil. Directions were left with those interested, as to the probable best mode of employing them; and although these directions have been attended to only in a few instances, enough has been obtained to sa-